



Smart Building Center & Webex log in.

- WiFi Name: SBC_Office_Guest_2g
- Password: Oct0ber2015 (the 2nd “o” in Oct0ber2015 is a zero)
- Webex
- www.commerce.wa.gov/buildings
- Look for today's agenda
 - Building Types, Bench-marking, and Standard 100 — Sections 5 & 7
 - 10 a.m. – 2 p.m. – Monday, Nov. 18 (Revised) (Please bring a brown bag lunch)
 - [Registration](#) (link)
 - [Webex](#) (link)



Department of Commerce

HB 1257 Pre-rulemaking

WORKSHOP 2

Buildings Team

12/3/2019

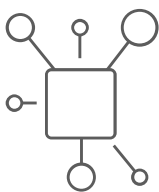




We strengthen communities



HOUSING / HOMELESSNESS



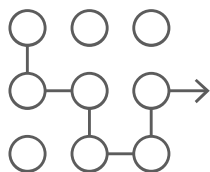
INFRASTRUCTURE



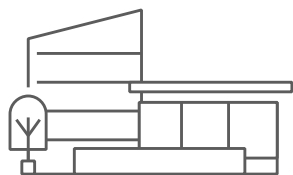
BUSINESS ASSISTANCE



ENERGY



PLANNING



COMMUNITY FACILITIES



CRIME VICTIMS / SAFETY



COMMUNITY SERVICE



Agenda

Disclaimer: Any comments we make today about specific rules are subject to change through the rulemaking process



Team Commerce

- Emily Salzberg Managing Director, Buildings Program
 - Chuck Murray Policy Specialist and Technical Lead
 - Austin Scharff Energy Rules and Legislative Coordinator
 - Paul Currington Tech Support
-
- New staff – Anneka McDonald, Anna Batie
-
- Webpage: www.commerce.wa.gov/buildings
 - Email: buildings@commerce.wa.gov



WSU Energy Program

- David Van Holde
- Karen Janowitz
- Jake Volkman

Professional Engineer

Project Manager

Energy Program Coordinator

SBW / 2050 INSTITUTE

- Faith DeBolt
- Poppy Storm

EUI target setting



Instructions for Commerce

RCW 19.27a.210

“In developing energy performance standards, the department shall seek to maximize reductions of greenhouse gas emissions from the building sector”.



Clean buildings web page

- Workshop Schedules
- Agendas
- Meeting Minutes
- Meeting Recordings
- Meeting Presentations
- Draft rules

- Updated as we go
- www.commerce.wa.gov/buildings



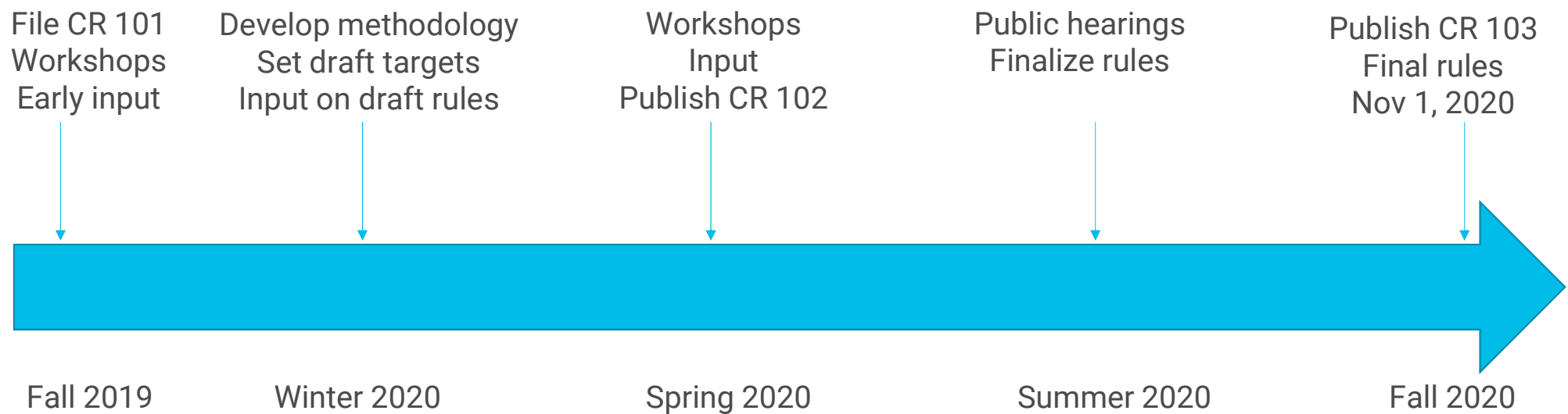
Feedback from workshop 1 - discussions

Important topics identified:

- Building types and EUI targets
- Cost effective criteria
- incentives and financing
 - Administrative rules
 - Financing for small/medium buildings
 - Rural communities
- Alignment with other programs
- Carbon impacts and reductions r(elative to EUI targets)
- Outreach for rulemaking workshops



2019-2020 schedule





Technical Agenda

- **Energy Audits**
 - RCW 19.27a.210 (2)(d)(i)
 - STD 100 Section 8
- **Energy Audits**
 - RCW 19.27a.210 (2)(d)(i)
 - STD 100 Section 9
 - We won't be discussing cost effectiveness criteria today...
- **Workshop to follow**

STD 100 Section 8



See WSU Slide Deck

STD 100 Section 9

The background is a solid blue color. On the right side, there is a decorative graphic consisting of several overlapping white circles. A thin white horizontal line spans the width of the slide, positioned below the main title.

Introduction to implementation



STD 100, Section 9. IMPLEMENTATION AND VERIFICATION REQUIREMENTS

- 9.1 Developing and Implementing an Energy Management Plan
- 9.2 Verification of Implemented EEMs
- 9.3 Compliance.



Section 9. IMPLEMENTATION AND VERIFICATION REQUIREMENTS

- 9.1 Developing and Implementing an Energy Management Plan
- Repeats some content from section 5, energy management plan, including capital investment planning
- Requires implementation of energy efficiency measures identified in the audits
- Describes cost / benefit calculation cap. (to be discussed in a future meeting)



9.1 Developing and Implementing an Energy Management Plan

9.1.1.1 Buildings with Energy Targets. For *buildings* having *energy targets*, *energy efficiency measures (EEMs)* identified from the energy audit shall be implemented in order to meet the *building's energy target*.

9.1.1.2 Buildings without Energy Targets. *Buildings* that do not have an *energy target* shall implement the *EEMs* identified from the energy audit within four years from the application of compliance.



INFORMATIVE ANNEX B TIMELINE

Table B-1 Compliance Timeline for Buildings with Energy Targets

- Step 5—Implement the selected package of *EEMs*.
- Step 6—Apply for *conditional compliance* AHJ must approve prior to the compliance date.

Table B-2 Compliance Timeline for Buildings without Energy Targets

- Step 3—Initiate implementation of the *optimized bundle* of *EEMs* identified in the energy audit. (4 years to complete and benchmark)
- Step 4—Apply for *conditional compliance*.

RCW 19.27a.210 –conditional compliance must be approved by Commerce prior to the compliance date.



RCW 27a.210

- The implementation plan may include phased implementation such that the building owner is not required to replace a system or equipment before the end of the system or equipment's useful life;



9.1 Developing and Implementing an Energy Management Plan

- **9.1.2.3 Implementation and Commissioning of EEMs.** *EEMs shall be implemented and commissioned. The qualified energy auditor or qualified person shall review the commissioning report and certify that the EEMs are functioning as intended.*
- **Informative Note:** For guidance on commissioning protocols, refer to ASHRAE Guideline 0, *The Commissioning Process*, and ASHRAE Guideline 1.1, *HVAC&R Technical Requirements for the Commissioning Process*.



9.1 Developing and Implementing an Energy Management Plan

- **9.1.2.3 Implementation and Commissioning of EEMs.**
- **Required by the 2018 Washington State Energy Code**
- Professional qualifications are different. Must be a certified commissioning agent.
- Energy code does not apply to smaller systems, or in the case of retrofits, parts of systems. i.e., less than 300,000 Btu heating.



9.1 Developing and Implementing an Energy Management Plan

- **9.1.2.2 Multiple Buildings.** For campuses having multiple *buildings* connected through one billing meter, a multiple *building* plan shall be implemented to coordinate *EEM* implementation among the *buildings* and measurement of the *EUI* of the campus.
- *This is the only references in the standard to campuses. There is no other supporting information.*



9.2 Verification of Implemented EEMs

- **9.2.1 Verification of Implemented EEMs for Buildings with Energy Targets.** Upon implementation of *EEMs*, the *building's EUI* shall be monitored until one full year's data demonstrate that *energy targets* have been met.
- **9.2.2 Verification of Implemented EEMs for Buildings without Energy Targets.** Upon implementation of *EEMs*, the affected end-use systems shall be monitored for one year to verify *EEM* energy savings. The *qualified energy auditor* or *qualified person* shall review the results of the *EEM* energy monitoring and certify that the energy savings of the package of *EEMs* meets or exceeds **75%** of the energy savings projected in the energy audit as required.

Thank you!



Department of Commerce

Email: buildings@commerce.wa.gov

Phone: (360) 725-3113

www.commerce.wa.gov

